

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference P06711PC	FOR FURTHER ACTION <small>see Form PCT/ISA/220 as well as, where applicable, item 5 below.</small>	
International application No. PCT/SE 2005/000383	International filing date (day/month/year) 17 March 2005	(Earliest) Priority Date (day/month/year) 22 March 2004
Applicant Bioarctic Neuroscience AB et al		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☐ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- ☐ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))

b. ☒ With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found unsearchable (see Box No. II)

3. ☐ Unity of invention is lacking (see Box No. III)

4. With regard to the title,

- ☐ the text is approved as submitted by the applicant.
☒ the text has been established by this Authority to read as follows:

Transgenic model for Alzheimer's disease

5. With regard to the abstract,

- ☒ the text is approved as submitted by the applicant.
☐ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regard to the drawings,

- a. the figure of the drawings to be published with the abstract is Figure No. _____
☐ as suggested by the applicant.
☐ as selected by this Authority, because the applicant failed to suggest a figure.
☐ as selected by this Authority, because this figure better characterizes the invention.
b. ☒ none of the figures is to be published with the abstract.

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Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of Item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. type of material
 - ☒ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material
 - ☒ on paper
 - ☒ in electronic form
 - c. time of filing/furnishing
 - ☐ contained in the international application as filed
 - ☐ filed together with the international application in electronic form
 - ☒ furnished subsequently to this Authority for the purposes of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

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A. CLASSIFICATION OF SUBJECT MATTER

IPC7: A01K 67/027

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7: A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

SE,DK,FI,NO classes as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

EPO-INTERNAL, WPI DATA, PAJ, BIOSIS, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	Wirths, Oliver et al, "Intraneuronal A Beta accumulation precedes plaque formation in Beta-amyloid precursor protein and presenilin-1 double-transgenic mice", Neuroscience Letters, 2001, vol. 306, page 116 - page 120, abstract; page 17, column 1, paragraph 2; figure 2; page 118, column 2, lines 2 - page 119, column 1, paragraph 2; page 119, column 1, last paragraph --	1-23
Y	Qiao-Xin Li et al, "Intracellular Accumulation of Detergent-Soluble Amyloidogenic A Beta Fragment of Alzheimer's Disease Precursor Protein in the Hippocampus of Aged Transgenic Mice", J. Neurochem. 1999, vol. 72, page 2479 - page 2487, abstract --	1-23

☒ Further documents are listed in the continuation of Box C.☒ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

1 July 2005

Date of mailing of the international search report

06-07-2005

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 Swedish Patent Office
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 Telephone No. +46 8 782 25 00

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	De-Hua Chui et al, "Transgenic mice with Alzheimer presenilin 1 mutations show accelerated neurodegeneration without amyloid plaque formation", Nature Medicine, May 1999, vol. 5, no. 5, page 560 - page 564, abstract --	1-23
Y	WO 0203911 A2 (LANNFELT, LARS), 17 January 2002 (17.01.2002), page 9, paragraph 2; page 13, paragraph 2	1-23
A	page 6, paragraph 5 --	1-4,11-16, 22-23
Y	Stenh, Charlotte et al, "The Arctic mutation interferes with processing of the amyloid precursor protein", Neuroreport, October 2002, vol. 13, no. 15, page 1857 - page 1860, page 1860, column 1, paragraph 3; page 1860, column 2, paragraph 2 --	1-23
Y	Nilsberth, Camilla et al, "The 'Arctic' APP mutation (E693G) causes Alzheimer's disease by enhanced A Beta protofibril formation", Nature neuroscience, September 2001, vol. 4, no. 9, page 887 - page 893, page 891, column 1, last line - page 892, column 1, paragraph 1 --	1-23
A	Fagan, Anne M. et al, "Human and Murine ApoE Markedly Alters A Beta Metabolism before and after Plaque Formation in a Mouse Model of Alzheimer's Disease", Neurobiology of Disease, 2002, vol. 9, page 305 - page 318, abstract --	6,18

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>BIOSIS, accession no. PREV200400201273, Iwata N et al: "Clearance of amyloid - beta peptide in the brain by adeno - associated viral vector - mediated neprilysin gene transfer", Society for Neuroscience Abstract Viewer and Itinerary Planner, 33rd Annual Meeting of the Society of Neuroscience; New Orleans, LA, USA; November 08-12, 2003, vol. 2003, Abstract No. 525.6</p> <p>--</p>	10,21
X	<p>US 20030200555 A1 (DARIA JEAN HAZUDA ET AL), 23 October 2003 (23.10.2003), paragraphs (0330) - (0335); (0374) - (0379)</p> <p>--</p>	1-2,4,11-14, 16,22-23
A	<p>US 5898094 A (KAREN DUFF ET AL), 27 April 1999 (27.04.1999), column 3, lines 27 - 30</p> <p>--</p>	5,17
A	<p>WO 02102412 A2 (MCGILL UNIVERSITY), 27 December 2002 (27.12.2002)</p> <p>--</p>	1-23
P,Y	<p>Crowther, D. C. et al, "Intraneuronal A Beta, non-amyloid aggregates and neurodegeneration in a drosophila model of alzheimer's disease", Neuroscience, 2005, vol. 132, page 123 - page 135, abstract</p> <p>--</p>	1-23
P,X	<p>WO 2004041213 A2 (BIOARCTIC NEUROSCIENCE AB ET AL), 21 May 2004 (21.05.2004), page 37, line 30 - page 38, line 3; page 57, lines 19-25</p> <p>--</p>	1,4,8-9, 11-13,14,16, 22,23
P,A	<p>US 20040255341 A1 (DAVID A. LOWE ET AL), 16 December 2004 (16.12.2004)</p> <p>-- -----</p>	1-4,11-13, 14-16,22-23

INTERNATIONAL SEARCH REPORT
Information on patent family members

28/05/2005

International application No.

PCT/SE 2005/000383

WO	0203911	A2	17/01/2002	AU	6800501	A	21/01/2002
				CA	2414772	A	17/01/2002
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				US	20020162129	A	31/10/2002
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US	20030200555	A1	23/10/2003	WO	2004099376	A	18/11/2004
				CA	2448142	A	28/11/2002
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				JP	2004530704	T	07/10/2004
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				WO	02094985	A	28/11/2002
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US	5898094	A	27/04/1999	AU	719507	B	11/05/2000
				AU	4820297	A	15/05/1998
				CA	2268812	A	30/04/1998
				EP	0946712	A	06/10/1999
				IL	129501	D	00/00/0000
				JP	2002515750	T	28/05/2002
				WO	9817782	A	30/04/1998
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WO	02102412	A2	27/12/2002	US	20040248766	A	09/12/2004
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WO	2004041213	A2	21/05/2004	AU	2003285151	A	00/00/0000
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US	20040255341	A1	16/12/2004	WO	2005041650	A	12/05/2005